



**ALLIED  
MINERAL  
PRODUCTS, INC.**

# STACKGUN 85 SiC

PNEUMATIC GUNNING MIX

## General Information

**STACKGUN 85 SiC** is a high performance, low cement gunning mix. The high conductivity of this silicon carbide based mix along with its unique matrix design makes it ideal as a protective coating product used to reduce adhesion of slags and buildups, and to reduce penetration of alkalis into refractory masses. Optimization of this gun mix allows it to perform closely to its sister castable, Stackcrete 85SiC V. This material is also well suited for gunning the melt zone of cupolas as well as lower areas of the blast furnace.

## Chemical Analysis

SiC+C	79.1%	Maximum Use Temperature	1650°C / 3000°F
SiO <sub>2</sub>	9.2%	Materials Required for Gunning (Excluding rebound)	2.54g/cm <sup>3</sup> (159 lb./ft <sup>3</sup> )
Al <sub>2</sub> O <sub>3</sub>	7.5%	Grain Size	5 mm (4 mesh) and finer
CaO	1.2%	Installation Methods	Pneumatic Gunning
Fe <sub>2</sub> O <sub>3</sub>	0.5%	Standard Packaging	25 kg (55 lb) multi-wall paper bags
Others	2.5%	Standard Palletizing	64 bags per pallet (1600 kg / 3520 lbs)
		Note:	Bulk bags available upon request

## Gunning Data

Temperature		Density		Linear Expansion <sup>†</sup>		MOR		CCS	
°C	°F	g/cm <sup>3</sup>	lb/ft <sup>3</sup>	%		MPa	psi	MPa	psi
110	230	2.32	145.0	-	-	9.1	1320	42.7	6195
982	1800	2.30	143.4	-0.4	-0.4	14.0	2036	40.2	5840
1316	2400	2.39	149.4	-0.3	-0.3	23.5	3407	50.1	7270
1482	2700	2.42	151.0	-0.2	-0.2	34.5	5014	87.8	12750

## Set Times and Water Requirements

<b>Predampening Water Level</b>	0%-2%
<b>Mixing Time to Predampen</b>	if predampening, minimum of 4 minutes
<b>Dwell Time</b>	5 to 10 minutes
<b>Initial Set</b>	1-5 hours
<b>Final Set</b>	2-18 hours

Allied Mineral Products, Inc. supplies a complete line of monolithic refractories for industrial applications. For more information or a complete evaluation of your refractory requirements, please contact your local Allied representative.

**Warning:** Contains aluminum oxide, aluminosilicates, silicon carbide, cement, and silica. The International Agency for Research on Cancer (IARC) has classified crystalline silica inhaled in the form of quartz or cristobalite carcinogenic to humans. Refer to Material Safety Data Sheet for additional information and disposal instructions. Avoid breathing dust. Wear NIOSH approved respirator during installation, removal, and disposal of product to prevent inhalation of dust. Avoid contact with skin and eyes. Steam spalling, which can lead to personal injury, may result from improper drying and firing procedures. In case of eye contact, flush immediately and repeatedly with water and consult a physician. For safest use and optimum performance, proper practices must be followed.

SG85SiC  
Issued 5/5/11  
© 2011 Allied Mineral Products, Inc.

THE INFORMATION STATED IS BASED ON THE BEST LABORATORY AND LITERATURE DATA AND IS NOT A WARRANTY OR A GUARANTEE, NOR A VIOLATION OF ANY PATENT. IT IS PRESENTED FOR CONSIDERATION AND VERIFICATION ONLY, AND IS NOT TO BE USED FOR SPECIFICATION PURPOSES.